

ABSTRACT

Disclosed are a method for cleaning a deposition chamber by removing attached metal oxides, and a deposition apparatus for performing *in situ* cleaning. A first gas and a second gas are provided into the deposition chamber. The first gas is reacted with metal included in the metal oxide to generate reacting residues. The second gas then decomposes the reacting residues, and the decomposed residues are exhausted out of the chamber. Thus, this cleaning process can be rapidly accomplished while the deposition chamber is not opened or separated from a deposition apparatus.